

ON THE OCCURRENCE IN ENGLAND OF *VALVATA MACROSTOMA*,
STEENBUCH.

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VALVATA MACROSTOMA, Steen., is a well-known and universally recognized species, being known in a living state from Sweden, Norway, Denmark, Northern Germany, Russia, Finland, and Galicia, and in a fossil state from several deposits of Pleistocene age in Germany, and from the Holocene of Denmark. Unlike so many of the Continental 'species' of *Valvata*, it is a species as we understand it, and is quite distinct from the polymorphic *V. piscinalis*. We have always considered it a species which was likely to occur in England, but all our efforts were fruitless until last year, when one of us (A. W. S.) visited the Pevensey Marshes, Sussex, where several examples of *Valvata* were collected at the Eastbourne end of the marsh, which in our opinion are undoubtedly *V. macrostoma*. It may be as well to mention that the object of the visit to Pevensey was to obtain examples of *Planorbis vorticulus*, Tröschel, and that the search for this species was unsuccessful at that time. Pevensey was the only locality in these Islands in which *P. vorticulus* had been found living, though it has since been found alive near Whitlingham Station, near Norwich, by one of us (A. S. K.).

On the discovery of these recent examples of *Valvata macrostoma* a further examination was made of all the fossil examples of *Valvata* that we could obtain access to, but no fossil examples were forthcoming. However, on examining a series of Pleistocene mollusca from Clacton, kindly sent by the Rev. R. Ashington Bullen, an undoubted example of *V. macrostoma* was detected.

We have used the specific name *macrostoma* because there is no doubt about this species, but this is not so with regard to *V. depressa*, Pfr., and *V. pulchella*, Studer. We are quite unable to separate *macrostoma* from shells labelled *pulchella* and *depressa* which we have received from Germany. *V. pulchella*, Studer, was never described by Studer, and there is considerable doubt as to what *V. depressa*, Pfr., really is. By some authors it is considered a variety of *piscinalis*. This, at any rate, is certain, that the *V. depressa*, Pfr., of German authors is quite different from that of French authors, just as *Planorbis septemgyratus*, Ross., is unknown to French authorities, who have applied the name to a totally different species, and a similar condition of things exists with regard to *Succinea arenaria*, Bouch. Chant.

Now that *Valvata macrostoma* has been recognized in England it is hoped that further research will discover it in other localities.